



*Critical components for south San Antonio's transportation plan include the development of a comprehensive multi-modal circulation system of roadways that implement east-west connections, while protecting the rural landscape.*

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## Planning Participants

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The Transportation Plan provides a comprehensive and coordinated circulation system to meet the various needs of South-side residents, visitors and businesses. It evaluates the existing transportation system, including major thoroughfares, railroads, airports, and public transportation opportunities. A key component of the Transportation Plan is the City of San Antonio Major Thoroughfare Plan, which serves as the City's guide in securing needed right-of-way to upgrade and extend the street network, roads and highways within the corporate city limits and the extra-territorial jurisdiction (ETJ).

A transportation system is the basic framework, in conjunction with land use, upon which the urban and regional form is shaped. Major streets and highways not only move people and goods throughout the region, but also affect a community's social and economic environment. The location and design of roadways, as well as multi-modal transit choices (auto, bus, light-rail, train, bicycle, walking, park trails, equestrian etc.) have significant consequences on land use patterns, air quality, plant and animal habitats, environmental noise and a community's appearance.

As south San Antonio continues to develop, advanced planning for quality roadways is important in meeting future travel demands. Effective major thoroughfare planning contributes to economic development, reduces traffic congestion and environmental degradation, thereby improving the quality of life for residents. With an increased emphasis placed on the natural environment, coupled with the varying needs of residents, major roadway planning must take into account alternative modes of transportation, including pedestrian and bicycle circulation, and public transportation. The existing transportation system can be enhanced by establishing multi-modal connections, stressing the importance of street types and street functional classifications, and exploring additional transportation tools critical to implementing the land use plan.

### Public Agency Transportation Planning Participants

Transportation planning within the San Antonio metropolitan area involves federal, state, regional and local agencies. The primary agencies that directly impact transportation planning within the City South Community Plan study area, include:

**San Antonio-Bexar County  
Metropolitan Planning  
Organization (MPO)**

**Texas Department of  
Transportation (TxDOT)**

**Bexar County**

**City of San Antonio (COSA)**

**VIA Metropolitan Transit  
Authority (VIA)**

**Alamo Area Council of  
Governments (AACOG)**

**Suburban Cities**

### Key Community Issues

#### **Construction**

*Must incorporate new east-west connections*

*New roadway locations should correspond with desired development*

*Identify specific connections*

*(e.g., Pleasanton, Mauerman to 410, Watson to IH35, Heinze (n/s))*

*Address new bridge needs (e.g., FM 1937)*

#### **Capacity/Congestion**

*Analyze current and potential vehicular roadway capacities*

*Analyze existing composting truck and flea market traffic*

*Address impact of Toyota truck traffic on roadway system*

#### **Character**

*Incorporate sidewalks into road construction design*

*Use rural parkways or boulevard with planting strip & trees*

*Incorporate bike lanes as integral part of roadway*

*Address impact of Toyota on character of area*

*Street appearance/character is future defining feature*

*(need screening, no billboards, monument signage only)*

#### **Connections**

*Explore connection alternatives to Toyota (roadway, rail)*

*Arterial infrastructure connections to local communities*

*Street connectivity (n/s vs. e/w)*

*Public transit (e.g., bus, bus rapid transit, commuter rail)*

*Provide connections to Toyota and A&M*

#### **Environment**

*Integrate solar powered, covered bus shelters*

*Address Toyota buffer zone concerns (location, environment)*

*Address flood control/drainage problems (Brooks @ Goliad St)*

## GOALS & OBJECTIVES

Develop a comprehensive circulation system serving local as well as regional needs for existing and future developments within the Southside area

- Expand public transit to encourage greater use of transit, reduce traffic congestion, improve air quality, conserve energy, and provide better transportation for those unable to, or choose not to drive
- Promote alternative modes of transportation and related facilities including pedestrian and bicycle routes, public transit and others.
- Coordinate with railroad companies to improve safety conditions of rail lines running through the Southside Community Plan Study area.

Provide continuity of traffic flow within and between neighborhoods and throughout the community

- Amend the Major Thoroughfare Plan to ensure efficient and desirable connections between major arterials and other thoroughfares and to prioritize transportation improvement needs as recommended in the plan.
- Establish minimum Design Standards for major thoroughfare ROW, in order to implement parkway design concepts to promote rural character.

Provide for the increasing demand for transportation facilities while preserving and enhancing the attractiveness of the environment

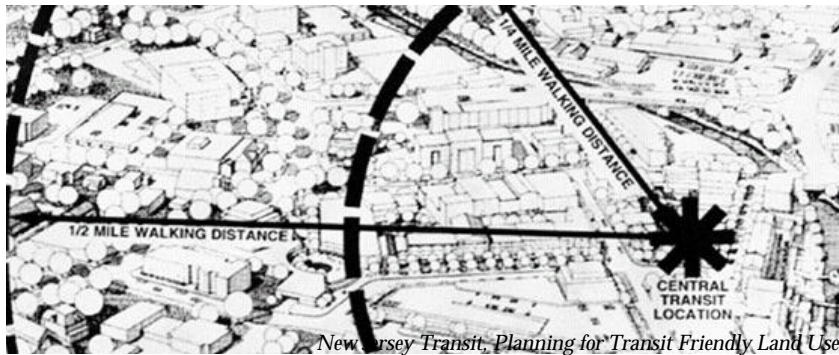
- Amend the city code to provide roadway design that preserves rural and aesthetic character

Establish Utility Corridors parallel or adjacent to Major Thoroughfares (CPS Electric Transmission and Distribution Lines, CPS Gas Lines, SAWS, Bexar MET, SBC, Time Warner, and other Telecommunication Providers) and Limited Right-of-Way Usage

- Amend the city code to provide utility corridors parallel or adjacent to major thoroughfares to preserve rural and aesthetic character on roadways.
- Use Underground facilities first, Overhead Utilities second and Underground Conversion as a third alternative to provide aesthetic environment.
- Right-of-Way usage should be limited to allow utilities to serve property adjacent to ROW that cannot be served from the rear by specific utility easements or utility corridor.

### Planning Issues

A number of transportation-related issues were identified through the three community involvement meetings. Contact was made with key residents and local stakeholders, and input was received from the City South Community Plan Technical Advisory Committee and public agencies involved in transportation planning. Primarily, the issues were related to the geographic location of the study area, access to public transportation, roadway appearance, congestion, safety and pedestrian circulation. In addition, the Urban Land Institute (ULI) provided a number of transportation recommendations in their report regarding circulation within the Southside study area. The issues identified were instrumental in developing the goals and objectives of the City South Community Plan Transportation element.



### Roadway Accessibility

The Southside community planning area is located in an accessible, convenient location. For a complete description of existing thoroughfares, see Appendix C. The existing roadway system in the planning area has excellent access to the interstate highway system. Accessibility planning issues include:

#### Alternatives for Multi-Modal Transportation

- Adequate public transportation and mobility for low-income workers and residents, the elderly and transit-dependent individuals throughout the study area
- Hiking, biking, jogging and park and/ or nature trails
- Sidewalk access to neighborhood schools to alleviate the need to walk along busy major thoroughfares

#### Future Traffic Congestion Mitigation and Improved Traffic Circulation

- Improved network of major thoroughfares
- Improved access to service area through a network of east/west major thoroughfares
- Safety should be a primary concern of major thoroughfare network development

#### Transportation Planning Coordination

- Transportation planning should be coordinated among transportation agencies serving the study area, surrounding counties and adjacent communities

#### Desire to Improve the Appearance of Major Roadways

- Provide enhancements for newly constructed major thoroughfares
- Improve the condition and provide enhancements for planned reconstruction of major thoroughfares
- Consider the use of parkways, boulevards and landscaped medians as prototypes for roadways within the area and those linking to roadways north of the planning area





## EXISTING TRANSPORTATION SYSTEMS

The transportation network for this predominantly rural, southern portion of the San Antonio Metropolitan area, consists primarily of paved county roads and state highways. The planning area also contains some minor roadways, which provide limited internal circulation and access to adjacent property. In contrast, expansive interstate highways shape the planning area boundary.

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### Public Transportation

National studies have found that public transit service is most widely utilized by persons within lower median income brackets, the elderly, and those who do not own an automobile. However, accessibility to public transportation should be a mobility option made available to the entire community.

The VIA Metropolitan Transit Authority provides fixed route bus service throughout San Antonio, member communities within Bexar County, and other areas within their designated authority. The Transit Authority has been operational since 1978, after taking over public transportation operations from the City of San Antonio. Currently, VIA serves over 1200 square miles of Bexar County, including San Antonio, 17 additional area municipalities and the unincorporated areas of the County.

Two VIA public transit routes are currently located within the study area. Route 52 currently runs only one trip each in the am and pm. VIA is currently implementing a comprehensive restructuring of its routes, which is scheduled to become effective on August 4, 2003. Future steps for

the comprehensive service plan will include Route 42 (same as current) to service Villa Coronado with "Metro" (30 minute) service, and Route 51 (replacing Route 52) to service downtown along Nogalitos St. with "Frequent" (15-30 minute) service.

connection point between services to outlying communities, serving as the primary hub for the Southside transit system.

VIA also operates nine Park and Ride locations within its service boundary, which offers the public another convenient way to access the city. Many resi-



Two future public transit facilities are planned near the study area's northern fringes. One facility is to be located at Brooks City-Base, and will serve as a transit service hub for the southeast sector of the VIA Service area. The second facility, the South Central Transit Station, will be located near Military Drive/Zarzamora Street, and will serve as the hub of the south central sector. It is also expected to operate as a major

dents use the Park and Ride locations to ride the bus to a variety of special events, including Spurs games, Fiesta, Folklife Festival, and numerous concert events. The two Park and Ride facilities nearest the study area are McCreless Mall, located at South New Braunfels Avenue, north of the planning area, and a facility near the incorporated city of Elmendorf, located at F. M. Loop 1604 at Highway 181, southeast of the planning area.

## Railroads

The location of rail lines in San Antonio has played an important role in the city's historical pattern of growth and development. Currently, Union Pacific owns all of the rail tracks in Bexar County. Two rail lines maintained by Union Pacific traverse the planning area in a north to south direction. One line is centrally located and parallels portions of Pleasanton Road. The second line parallels South Presa Street and changes to an east to westerly direction inside the study area near Southton Road.

A newly established Bexar County Rail District was created in 2002 to assist the Toyota Motor Corporation by providing dual rail lines to the planned Toyota site. The district's creation was a response to the Union Pacific refusal to sell trackage rights to a competing rail carrier on its lines. The main task of the district is to locate a route that will link the 2400 acre Toyota plant site to tracks that Burlington Northern/Santa Fe rail line can use.



The Bexar Rail District is currently studying six possible routes for such a connection.

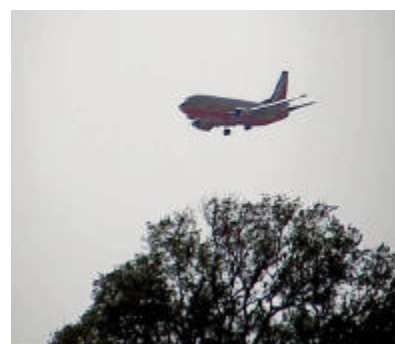
Each route, which is about eight miles long, is estimated to cost between \$16 and \$23 million to construct. The state has pledged \$15 million toward construction and Burlington Northern/Santa Fe may pay a portion, depending on its negotiations, for future

business from Toyota. Any differences in the cost can be supplemented by rail district revenue bonds. Three of the proposed routes under study approach the Toyota plant from the east; the remaining three routes approach the site from the west.

Since the 1800s, railroads have had a major influence on growth and development of the San Antonio region and have contributed to the area's economic vitality. As such, care should be taken to preserve the functional utility of rail corridors within the area, while coordinating with major roadway needs. At-grade railroad crossings cause traffic conflicts between railroads and motor vehicles, as well as pedestrians and bicyclists. At-grade intersections of railroad lines with roadways are also a cause of traffic delays and air quality and traffic safety concerns. In addition, at-grade crossings impede emergency vehicle access. Currently, a number of crossings within the study area are at grade. Potential solutions to improve safety and efficiency of traffic flow include constructing grade separated over/underpasses at major roadway intersections, and the use of traffic safety control devices such as gate arms, flashing lights, signage and pavement markings.

## Airports

The Stinson Municipal Airport is located directly adjacent the planning area. Stinson is the second oldest, continuous operating, general aviation airport in the nation. The Stinson airport is ten minutes south of the San Antonio central business district on Mission Road, with easy access to IH 37, IH 35, and IH 10. The Stinson airport is ten minutes south of the San Antonio central business district on Mission Road, with easy access to IH 37, IH 35, and IH 10. As the primary reliever of general aviation traffic in the city, Stinson is extremely appealing to operators of light aircraft and individuals and private aviation companies. Stinson Airport is approximately 14 miles due south of the San Antonio International Airport which provides both domestic and international service on 14 carriers, including American, Continental, Delta, Northwest, Southwest, Trans World and United Airlines.





### BICYCLE, PEDESTRIAN CIRCULATION SYSTEM

Eliminating barriers to bicycle and pedestrian mobility is one of the most important issues in bicycle and pedestrian planning. Freeways, major arterials, railroads, water features and topography all impose significant barriers to access and mobility. As the Southside continues to develop, on-street bikeways and off-street bike/hike and jog trails should link major attractions and destinations, including residential areas, major employers, parks, schools, churches, libraries, museums, medical clinics and other community facilities.

#### Bikeways

Currently, the City does not have an adopted Bicycle Master Plan, however, a regional bicycle planning effort sponsored by the San Antonio-Bexar County Metropolitan Planning Organization (involving all public transportation planning-related agencies) is currently underway. Upon completion (scheduled for 2004), the results or by-product of this effort will represent the City of San Antonio Bicycle Facilities Master Plan.



Bicycling is a viable and inexpensive alternative to driving, accommodating longer trips than walking, particularly when combined with transit. When planning a bicycle system, emphasis should be placed on ensuring that bicycle facilities within the study are adequate, well maintained, continuous and secure. Connecting the bicycle system to other transportation modes entails not only connections to the transit system itself, but also attention must be given to details at the terminus of the path. The following elements promote an effective Bicycle system:



- Continuous and interconnected system of bicycle lanes, bicycle routes and off-street paths
- Intersection design that accommodates bicycles, including continuation of lanes through intersections, bicycle detectors and adequate clearance time at traffic signals
- Bicycle parking that is highly visible, adequately lit, well signed, conveniently located near building entrances and transit stops, and possibly sheltered
- Bicycle stations (publicly or privately operated facilities that offer services such as covered, secure valet parking, bike accessories and repair; bike and transit information; and when possible, food service and locker rooms) at locations where there are high volume of bicyclists. Appropriate locations may include office complexes and transit, entertainment and shopping centers
- Bicycle accommodations provided on VIA transit vehicles at all times, not just at peak hours



## Pedestrian System

Since every trip begins, ends or connects with a walking mode, the pedestrian environment becomes the primary transportation element that connects all travel modes together. An effective pedestrian system is needed to move people and provide access to adjacent land uses. The following elements enhance the safety, comfort and attractiveness of the pedestrian system:



- Interconnected pedestrian system with continuous sidewalks along streets, and clear and direct connections from sidewalks into and between buildings and transit stations
- Wider sidewalks, through the use of design features (e.g., curb extensions or building frontage setbacks) at more congested locations such as bus stops, building entrances and resting areas
- Crosswalks with highly visible markings, coupled with advanced signage.
- Buffers between sidewalks and travel lanes created by street trees, tree lawns or on-street parking
- Recognition of the green connections linking parks within the study area
- Provisions of curb ramps, removal of barriers and conflict points, and other improvements for elderly, disabled and transit-dependant travelers
- Public places designed into the pedestrian environment ranging from large plazas to small niches or pocket parks with sitting areas for gathering or resting



## Future Influences

The Major Thoroughfare Plan (MTP) is a part of the City's Master Plan that designates the location, dimensions, and dedication requirements of expressways, primary arterials, and secondary arterials. The Plan includes a network of streets that integrate commercial and industrial development, schools, parks and residential areas with major highways. The surface transportation network promotes land use objectives and simultaneously provides improved traffic circulation. Three primary factors that affect the amount of future traffic in an area are:

- Expansion of urban land uses
- Increases in motor vehicle ownership, and
- Increases in population density

Vehicle traffic is largely a product of land use activities. Where people live, work and play determines the nature and frequency of trips made. Identifying areas of activity within and adjacent to the study area provides a basis for determining the major thoroughfare network necessary to interconnect and serve them.

### Trip Generators

The location and character of land uses that generate moderate to large numbers of trips will influence traffic volumes and traffic flow patterns within the study area. The major traffic generators, both within and adjacent to the study area were identified and considered in reviewing the transportation system and developing the transportation element of this plan. Significant trip generators within and adjacent to the Southside community plan planning area include the following:



- Kelly-USA
- Brooks-City Base
- Stinson Municipal Airport
- Police Academy
- Frank Tejada Academy/Boggess Center
- Missions Trails Area
- Palo Alto College
- Land Heritage Institute of America
- Mitchell Lake Re-Use Project
- Mission Del Lago
- San Antonio State Hospital/State School/  
Texas Center for Infectious Disease
- Downtown Central Business District
- South Park Mall
- Toyota Motor Corporation
- Proposed Texas A&M campus

### Constraints to Major Thoroughfare Development

The City South Community Plan Study area has several natural and man-made barriers that were considered in developing a Major Thoroughfare network for the area. Major constraints that limit future development and the extension of arterials within the area include the following:



- Natural and manmade features such as Mitchell Lake, the San Antonio River, the Medina River, Leon and Salado Creeks and other waterways, railroads, IH 35, IH 37 and South Loop 410
- Existing residential subdivisions
- Known landfills, oil fields, illegal dump sites, wastewater treatment plants, gas pipelines and easements
- Other utilities and easements

### NEW STANDARDS

Planning, design and construction of new roadways within the study area must comply with the development standards contained in the City's Unified Development Code and in the City of San Antonio Major Thoroughfare Plan. However, several amendments to the Plan should be considered to maintain the rural character of the planning area. Proposed amendments to the Unified Development Code and/or Major Thoroughfare Plan should include policies addressing:

- Access Management
- Roadway Aesthetics
- Roadway Designations and deletions



## Access Management

Access management consists of a series of design elements and techniques that can be implemented to allow for more efficient travel while respecting the access needs of adjacent land uses. Such techniques may include turn lanes, auxiliary lanes, raised medians and the establishment of minimum spacing requirements for driveways. The set of standards recommended for the planning area are described in Table 5. *(Note: Access Management criteria was developed and included in the Regional Corridor Plan Study, approved by the Metropolitan Planning Organization's Transportation Steering Committee in May 2003).* The Texas Department of Transportation is considering access management standards for state highways.



Table 5 - Access Management

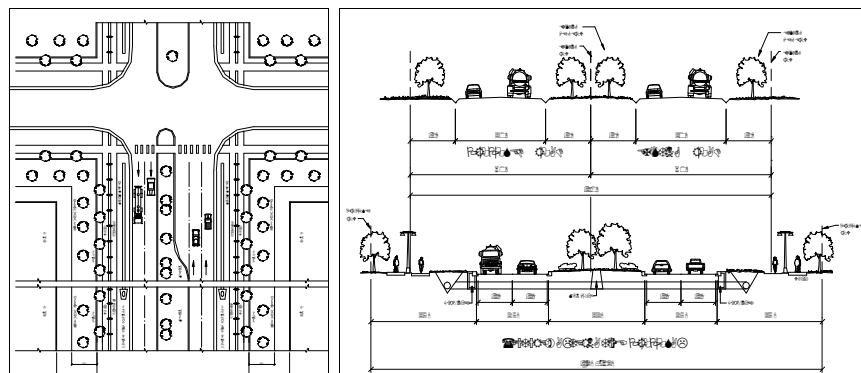
Category	Development Type (ft)	Signal Spacing (ft)	Unsignalized Median opening (ft)	Driveways (ft)
<b>Primary Arterials</b>	Sparse	2640	1320	1320>55mph 990>50mph
	Partial	2640	1320**	1320>55mph 990>45 or 50mph 660<40mph
	Full	1320* (no additional signals)	Median construction**	305@40mph 250@35mph 200@ 30 mph 155@ 25mph
<b>Secondary Arterials</b>	Sparse	2640	1320	1320>55mph 990 @ 45 or 50mph 660<40mph
	Partial	2640	1320**	1320>55mph 990 @ 45 or 50mph 660<40mph
	Full	1320* (no additional signals)	Median construction**	305 @ 40mph 250@ 35mph 200 @ 30 mph 155@ 25mph

\* Signal spacing should not be decreased from present conditions

\*\* Median opening must meet geometric criteria

## Roadway Aesthetics

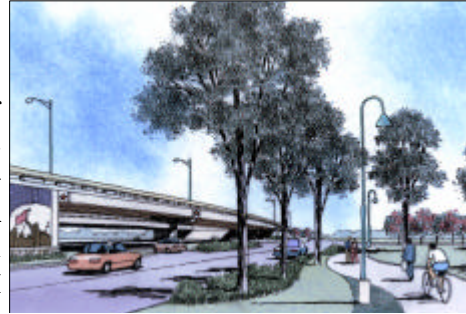
New and existing roadways should be transformed into high quality streetscapes that include trees, lighting, coordinated signage, walkways, trails, and bikeways along both sides of the public right-of-way. These parkways should also connect to feature access points to the open space network. Utility and high-tech infrastructure should be provided as unobtrusively as possible. Separate utility corridors should be considered.





### New Major Thoroughfare Designations and Additions Kelly Parkway

The former Kelly Air Force Base is now being converted to a major industrial park and intermodal cargo terminal named Kelly-USA. As a result of this conversion, traffic volumes in and around Kelly-USA, especially commercial truck traffic, is expected to increase. A part of the Kelly-USA redevelopment effort includes the proposed construction of a TxDOT parkway, connecting US Hwy 90 with IH 35 south and SH 16 south via Kelly-USA. After years of study and a series of public meetings coordinated by TxDOT, a specific routing emerged from a screening and evaluation process as the preferred option by both community and environmental concerns.



The Kelly Parkway will maintain an alignment from Loop 410 to State Highway 16. A parkway-type road, similar to the Wurzbach Parkway, will function as a minor freeway or a super arterial with limited access and overpasses at major intersections. In addition, the study recommended that the alignment of Kelly Parkway be extended from State Highway 16 east to connect with IH 37 as a major east-west thoroughfare.

### Other Road Designations and Additions

#### Benton City Road

Designate on existing and new alignment from intersection of Noyes Road extension south to Loop 1604 and beyond.

#### Noyes Road

Extend on new alignment from Senior Road west to Inter state 35

#### Noyes Road

Extend on new alignment east from State Highway 16 to connect with Rabel Road

#### Watson Road

Extend on new alignment from Quesenberry Road west to Interstate 35

#### Rabel Road

Designate as major thoroughfare on existing and new alignment from FM 1937 to Interstate 37

#### Campbellton Road

Extend north from Loop 1604 to connect with Interstate 37 as a park road

#### East/West Connection Paralleling Loop 410

Realign a segment of planned east/west connection paralleling Loop 410 on new alignment from Somerset Road to Zarzamora Street

#### Applewhite Road

Designate on existing and new alignment from Neal Road to Watson Road

#### FM 1937/Roosevelt Avenue

North of proposed Kelly Parkway, new realignment connection



### Major Thoroughfare De-designations and Deletions

#### Neal Road

De-designate and delete from Applewhite Road to Pleasanton Road

#### FM 1937

Delete thoroughfare designation and designate as park road